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ABSTRACT

In spring 1987, a follow-up survey was conducted of former William Rainey Harper College (WRHC) students who had taken five or more data processing courses at the college between 1980 and 1986. The survey focused on the students' employment status and educational intent while attending WRHC, their present employment situation, and their evaluation of the Data Processing Program. After two mailings of the survey instrument and a prompting telephone call, 57% of the 392 target students responded. Study findings included the following: (1) 86% of the respondents were employed full time while enrolled at WRHC, and 38% were employed in a data processing or related field; (2) although 69% expected to obtain a new job in the field as a result of completing the program, only 28% actually obtained a new job in data processing, while 32% remained with the same company; (3) at the time of the survey, 64% were working in a field related to data processing, earning an average annual salary of \$26,000; (4) in general, full-time faculty were rated better than part-time faculty; (5) the five highest rated data processing courses dealt with spreadsheets for microcomputers, advanced assembler, decision support for microcomputers, computer logic and programming technology, and advanced COBOL; and (6) one-third of the respondents said they would like to take additional data processing seminars, courses, or workshops at WRHC. Detailed survey results, including responses to open-ended questions, and the survey instrument are appended. (MDB)

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FOLLOW-UP STUDY OF FORMER STUDENTS OF THE DATA PROCESSING PROGRAM

Volume XVI

Number 3

October 12, 1987

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ABSTRACT

The purpose of this study was to follow up with former students who had taken five or more data processing courses at Harper College between 1980 and 1986. This was part of the review for the Data Processing Program. Questions were asked about the students' status and intent while attending Harper, their present situation and their evaluation of the Data Processing Program. After two mailings of the survey instrument and a prompting telephone call, 57 percent of the 392 targeted students responded.

Results of the survey showed that there was a difference in expected outcomes and actual experience among data processing students. More had expected to obtain new jobs in the field and fewer planned to upgrade job skills on their present job, but in actual practice the opposite occurred. The present average salary of these former students was \$26,000 and 64 percent were working in a field related to data processing. These averages were a little better than the averages for all Harper career graduates.

Full-time faculty were rated highly but part-time faculty were not rated so highly. The seven highest rated courses as to value were three application courses for micros, two COBOL courses, an advanced assembler course and a computer logic course. These former students indicated the most needed additional training for today's students are database, OS and JCL and CICS. One-third of the target population said they would like to take additional data processing seminars, courses, or workshops at Harper.

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PURPOSE

The purpose of this study was to follow up former students in the Data Processing Program. This served as part of the program review process for data processing. The study was requested by the Coordinator of the Data Processing Program.

POPULATION SURVEYED AND METHODOLOGY

All 392 students who had completed five or more data processing courses between the fall of 1980 and the spring of 1986 were identified. After two mailings of the survey instrument and a prompting telephone call, 225 or 57 percent of the target population responded. The survey instrument shown in the appendix was developed jointly by the Office of Planning and Research and the Coordinator of the Data Processing Program.

DISCUSSION OF RESULTS

Among these students who took five or more data processing courses, 86 percent were employed full time while enrolled at Harper and 38 percent were employed in a data processing or related field. More than a majority (59%) had as a goal, while enrolled at Harper, to achieve an associate degree. Moreover, over two thirds (69%) expected an outcome of the program would be to obtain a new job in the field while only 19 percent had an expected outcome of upgrading their present job skills. In actual practice after leaving Harper, only 28 percent obtained a new job in data processing while 32 percent continued working for the same company after leaving Harper. Thus, many more students actually upgraded their present job skills than had originally intended.

In their first job after leaving Harper, the average salary was \$18,500 and 72 percent were employed in data processing or related fields. This was, on the average, four years ago in 1983. At that time the average salary of recent career graduates at Harper was \$17,500 and about two thirds of those employed were working in fields identical or closely related to their major at Harper.

Four years later, at the present time, these former data processing students are earning an average of \$26,000 per year and 64 percent of the whole target population are working in a field related to data processing. Specific job titles of positions held upon first leaving Harper and of present jobs are listed in the data section of this report. Also listed in the data section are specific comments on how the Data Processing Program helped them get their present job or helped them upgrade their present job skills.

In general, full-time faculty were rated better than the part-time faculty as 69 percent of the students rated full-time faculty as good or outstanding while less than half of these students (48%) rated the part-time faculty as good or outstanding. Comments indicated that part-time faculty were sometimes more knowledgeable and had more practical experience, but often lacked teaching skills. Also, part-time faculty varied more in their teaching performance than full-time faculty.

Students were asked to rate the value of the data processing courses they took at Harper relative to their present job or educational situation. The seven highest rated courses were rated between "of value" and "of high value". They were spreadsheet for micros (rated as the highest value), advanced assembler, decision support for micros, computer logic and programming tech, advanced COBOL, COBOL, and word processing for micros. Among those seven courses, only computer logic and the two

DISCUSSION OF RESULTS (continued)

COBOL courses were taken by many students. The other four were taken by very few of this target population. The courses rated of least value (close to "of some value") were RPG, PL/1 and Intro to Business Software Packages.

These former data processing students were asked which competencies not developed at Harper **would be helpful now in their present employment situation**. The most frequently mentioned competencies were more knowledge about JCL (55%) and OS (44%). When asked what additional training today's DPR student should receive, the most frequently mentioned areas were database (63%) OS and JCL (57%) and CICS (53%).

Seventy students, or 31 percent of the students surveyed, indicated they had attended additional DPR seminars, courses, or workshops in industry. Moreover, another 74 students, or 33 percent of the survey population indicated an interest in attending specific seminars, courses, or workshops at Harper College.

Among the survey population of 225 students, some 120 offered specific comments about the data processing program. An analysis of these comments shows 41 were positive, 43 were negative, and 36 were mixed.

MAJOR CONCLUSIONS

There was a difference in expected outcomes and actual experiences among data processing students. More had expected to obtain new jobs in the field and fewer planned to upgrade job skills on their present job, but in actual practice the opposite occurred. The present average salary of these former data processing students was \$26,000 and 64 percent were working in a field related to data processing. These averages were a little better than the averages for all Harper career graduates.

Full-time faculty were rated highly but part-time faculty were not rated so highly. The seven highest rated courses as to value were three application courses for micros, two COBOL courses, an advanced assembler course and a computer logic course. These former students indicated the most needed additional training for today's students are database, OS and JCL and CICS. One-third of the target population said they would like to take additional data processing seminars, courses, or workshops at Harper.

FOLLOW-UP SURVEY OF DATA PROCESSING STUDENTS

Student Survey Items

<u>Enrollment Goal</u>	<u>N</u>	<u>PCT</u>
To take a few courses	62	27.7
To earn a certificate in DPR	31	13.8
To earn an associate degree in DPR	<u>131</u>	<u>58.5</u>
	224	100.0

<u>Expected Outcome of DPR Enrollment</u>		
To take DPR as general elective or general interest	16	7.1
To upgrade skills in present job situation	42	18.7
To prepare to obtain job in DPR field	141	62.7
To prepare to transfer to baccalaureate program in DPR	<u>26</u>	<u>11.5</u>
	225	100.0

<u>Employment Situation While at Harper</u>		
Full-time job in DPR	62	27.6
Part-time job in DPR	24	10.7
Job in another field	102	45.3
Was not employed while at Harper	<u>37</u>	<u>16.4</u>
	225	100.0

<u>What Student did after Leaving Harper</u>		
Took job with same company where student was working while at Harper	69	31.6
Took a job in the data processing field	54.5	25.0
Took a job in a related field that uses DPR skills	7	3.2
Took a job out of the data processing field	17	7.8
Continued education at another college	30	13.8
Still enrolled at Harper College	33.5	15.4
Moved	2.5	1.1
Searching for a job	2	.9
Homemaker	1.5	.7
Taking a year off	<u>1</u>	<u>.5</u>
	218	100.0

<u>Present Full-Time Annual Salary</u>		
\$ 9,000 - \$10,000	1	.6
\$10,000 - \$12,000	3	1.6
\$12,000 - \$15,000	4	2.2
\$15,000 - \$20,000	28	15.3
\$20,000 - \$25,000	69	37.7
\$25,000 - \$30,000	35	19.1
\$30,000 - \$35,000	21	11.5
\$35,000 - \$40,000	6	3.3
\$40,000 - \$50,000	13	7.1
\$50,000 - \$60,000	<u>3</u>	<u>1.6</u>

Total	183	100.0
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Mean Salary	\$26,000
-------------	----------

Median Salary	\$24,000
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<u>Present Situation</u>	<u>N</u>	<u>PCT</u>
Employed in DPR field	115	51.1
Employed in related field using DPR skills	29	12.9
Employed in field unrelated to DPR	59	26.2
Homemaker	4	1.8
Student - not employed	4	1.8
Retired	1	.4
Other - unemployed	13	5.8
	225	100.0

Type of Industry in Which Presently Employed

Agribusiness	1	.5
Service Industry	52.5	26.1
Construction	4.23	2.1
Transportation	3	1.5
Communication	12.5	6.2
Utilities	6	3.0
Retail Trade	15.5	7.7
Wholesale Trade	10.33	5.1
Manufacturing	33.5	16.7
Finance	17.22	8.6
Education	15	7.5
Government	6	3.0
Publishing	4	2.0
Insurance	20.22	10.0
Total	201	100.0

Present Job Title - Industry Type

Finance

Operations Coordinator
Programmer
Associate Programmer
Computer Operator A
Programmer Analyst
Computer Programmer
Lease Consultant
Systems Analyst
Administrative Assistant
Accounts Payable Rep.
Full Service Teller

Government

Data Processing Supervisor
Director
Regional Land Planner
Financial Specialist
Buyer
Vehicle Operations/US Postal Service

Service Industry

Senior Computer Programmer
Auto Technician
Computer Programmer Trainee
Programmer/Analyst
Security Guard
Computer Engineer
Computer Programmer
Sales Merchandiser
Data Processing Manager
Client Relations Representative
Fire Fighter
Part-Time Secretary
Maintenance
Data Review/Programmer
Data Processor
Hotel Controller
Do-It-All
Systems Manager
Receptionist/Sales

Present Job Title - Industry Type (continued)

Insurance

Programmer
Designer Analysis
Data Processing Supervisor
Computer Programmer
Programmer/Analyst
Computer Operator
Systems Programmer
Associate Systems Consultant
Insurance Claims Approver
Systems Analyst
Programmer 3
Associate Technical Rep.

Education

Lab Supervisor
Business Instructor
Assistant Principal
High School Teacher
Math/Computer Teacher, High School
Student Programmer
Teacher
Computer Coordinator
Coordinator of DPR Tutors

Wholesale Trade

Data Processing Manager
Programmer
Manager of Application Program
Technical Systems Analyst
Secretary
Computer Operator
District Sales Manager
Lead Systems Analyst

Construction

Janitor
Computer Operator A
Accounting Manager
Computer Programmer/Operations

Hospital/Medical

Staff Nurse
Programmer/Analyst
Accounts Payable Supervisor
Inventory Buyer
Admin. Assistant Lab Improvement
Programmer

Public Relations/Marketing/Advertising

Coordinator, Word Processing
Computer Programmer
Administrative Assistant
Consultant
Shift Operator 2
Programmer

Utilities

Computer Operator
Programmer/Analyst C

Retail Trade

RX Helper/Desk Coordinator
Sales Merchandiser
Computer Operator
Computer Operator A
Sales
Computer Programmer
Programmer/Analyst
Programmer
Manager for Retail Store
Student

Manufacturing

Accountant
Accounting Specialist/Group Leader
Programmer
Jr. Programmer
Programmer/Analyst
Associate Programmer
Sr. Technical Consultant
Training Instructor
Tax Analyst
Lead Computer Operator
Data Processor Operator
Data Processing Manager
V.P. Administrator and Comptroller
Computer Programmer
Draftsman

Communication

Service Representative
Unix System Administrator
Programmer/Analyst
Computer Operator
Systems Analyst A T and T
Operators Methods Analyst
Staff Manager

Publishing

Mailroom Supervisor
Communications Clerk
Public Relations Back Up
Programmer Analyst

Present Job Titles - Miscellaneous (continued)

Various Industry Types - Job Titles

Word Processing Specialist	Secretarial
Student P/T Bookkeeper	Programmer Analyst
Configuration Manager	Computer Retailer
Loan Clerk	Homemaker
Student	Specialist Systems Programmer
Supervisor, Travel Services	Programmer
Order Administration	Project Leader/Manager
Accountant	Computer Programmer
Data Center Manager	Retired
Office System Specialist	Senior Programmer
Director, Production Engineering	Technical Support Manager
Software Engineer	Cashier
Basic Aide	Consultant
Production Controller	Systems Analyst

Beginning Job After Leaving Harper

	<u>N</u>	<u>PCT</u>
In DPR field	61	53.1
In related fields using DPR skills	22	19.1
In fields unrelated to DPR	32	27.8
Total	115	100.0

Industry Type of Beginning Job

Agribusiness	1	.8
Service Industry	32.5	24.3
Construction	3.25	2.4
Transportation	1	.8
Communication	8	6.0
Utilities	5	3.7
Retail Trade	12.25	9.1
Wholesale Trade	10.75	8.0
Manufacturing	21.75	16.2
Finance	10.5	7.8
Education	10	7.5
Government	4	3.0
Publishing	3	2.2
Insurance	11	8.2
Total	134	100.0

Full-Time Salary of Beginning Job

\$ 3,328 - \$ 4,160	1	.8
\$ 7,000 - \$ 9,000	2	1.6
\$10,000 - \$12,000	12	9.5
\$12,000 - \$15,000	30	23.6
\$15,000 - \$20,000	45	35.4
\$20,000 - \$25,000	21	16.5
\$25,000 - \$30,000	8	6.3
\$30,000 - \$35,000	4	3.2
\$35,000 - \$50,000	4	3.1
Total	127	100.0

Mean Salary	\$18,500
Median Salary	\$17,000

<u>Year Began Work</u>	<u>Industry Type</u>	<u>Beginning Job Title</u>
1957	Construction	Accounting Manager
1958	Education	Department Chairman
1961	Communication	Programmer Trainee
1970	Education	Computer Coordinator
1973	Government	Computer Programmer
1976	Service	Waitress
1978	Communication	Order Analyst
	Education	Math/Computer Teacher
	Service	Automotive Technician
1979	Publishing	Customer Service
	Education	Business Admin. Teacher
	Retail	Sales Clerk
	Service	Data Entry Supervisor
1980	Communications	Clerk
		Customer Service Rep.
	Manufacturing	Computer Operator Trainee
	Finance	Computer Operator Trainee
	Service	Travel Consultant
	Government	Social Science Analyst
1981	Service	Computer Prog. Trainee
	Education	Computer Operator
		Programmer
	Insurance	Associate Programmer
	Accounting	Accountant
	Wholesale Trade	Associate Programmer
	Manufacturing	Systems Analyst
1982	Wholesale Trade	Programmer Trainee
	Finance	Computer Oper. Trainee
	Education	Computer Programmer
	Communication	Programmer Trainee
		Order Specialist Admin.
	Oil Industry	Accountant
	Hotel Industry	Computer Operator
1983	Banking	Production Assistant
	Building Controls	Software Test Tech.
	Insurance	Computer Operator
		Programmer
		Claims Approver
	Business	Office Worker
	Manufacturing	Data Entry Operator
		Service Coordinator
	Specialized Software	Technical Support
	Education	Substitute Teacher
	Finance	Credit Investigator
		Programmer Trainee
	Government	Information Coordinator
	Service Industry	Bookkeeper
		Software Support
	Medical	Sr. Statistical Spec.
	Utilities	Computer Operator
	Distribution	Programmer

(Continued)

<u>Year Began Work</u>	<u>Industry Type</u>	<u>Beginning Job Title</u>
1984	Finance	Data Entry
	Manufacturing	Computer Operations
		Accounting Specialist
		Programmer Trainee
		System Operator
		Draftsman
	Education	Lab Supervisor
	Electronics	Computer Teacher/Coor.
		Secretary to V.P.
	Woodworking	Laborer
	Insurance	Programmer
	Government	Record Clerk A
		Expeditor
	Direct Mail	Programmer Trainee
1985	Service Industry	Programmer
	Engineering	Application Programmer
	Hospital	Programmer Analyst
		Sales Representative
	Insurance	Programmer
		Programmer
	Service Industry	Stockroom
		Programmer
	Communication	Cashier
	Restaurant	Lease Consultant
	Finance	Sr. Collector
	Wholesale	Computer Programmer
		Asst. Warehouse Mgr.
	Construction	Worker
1986	Manufacturing	Programmer Trainee
	Software	Data Processing
		Technical Support
	Hotel/Motel Business	Programmer
	Publishing	Executive Secretary
	Education	Substitute Teacher
	Service Industry	Travel Consultant
		Telemarketing Rep.
	Retail Trade	Computer Mktg. Rep.
	Insurance	Systems Analyst
	Software Industry	Jr. Programmer
	Car Dealership	Internal Support Prog.
	Manufacturing	Application Programmer
	Retail	Sales Representative
1987	Service Industry	Computer Operator

EVALUATION ITEMS

Overall Judgment of DPR Faculty	Rating Index	<u>Full-Time Faculty</u>		<u>Part-Time Faculty</u>	
		<u>N</u>	<u>PCT</u>	<u>N</u>	<u>PCT</u>
Outstanding	+3	80	42.1	49	25.8
Good	+2	51	26.9	43	22.6
Okay	+1	16	8.4	18	9.5
Mixture	+1	42	22.1	75	39.5
Unsatisfactory	0	1	.5	5	2.6
Total		190	100.0	190	100.0
Average Index		2.11		1.72	

How DPR Courses Helped Student
in Present Job Situation

	<u>N</u>	<u>PCT</u>
Helped Student Obtain Present Job	99	45.6
Helped Student Perform Better on Present Job	82	37.8
Have not had any Effect on Present Job or Educational Situation	18	8.3
Have Helped Student in Present Educational Situation	30	13.8
Question not Applicable	24	11.1
Number of Responses to Question	217	

DPR Courses Helped Student Obtain Present Job

- Did not specify — 16
- Was hired as a programmer, first for a micro-based system, and now have moved on to technical support of micros.
- General data processing background.
- Through the internship I was able to prove my abilities.
- Knowledge/experience to advance from data entry.
- Took me from data entry through operations, jr. programmer to programmer analyst.
- Transfer to a programmer position from a secretarial/clerk position by getting the degree.
- The man I worked for wanted computer skills and knowledge of word processing.
- To be able to supervise and understand DPR department - I needed my degree.
- Data processing department
- The degree and the basic courses.
- Gave me the necessary background needed - I program.
- It gave me the basic skills and some practical experience (internship).
- Helped me understand how computers function and how to use them efficiently.
- Associate degree in DPR related field.
- Was in automotive field for 18 years - first chance for new career.
- Because I had a background of data processing and experience with PC's.
- I went to job service, got part-time job, 7 months later got full-time job.
- They gave me the background needed to get my foot in the door.
- Jack Carroll gave me a lead about a job in programming.
- DPR courses updated my academic credentials in vital area.
- Needed data processing exposure.
- Knowledge in computing was necessary to be able to perform at this job.
- I already had a BS in education, so the four courses I took allowed me to meet the requirements for an entry-level programmer position.
- General data processing knowledge.
- Having DPR education was criteria for entry level position.
- Programming skills in Cobol, assembler, and PL/1 and design courses.
- Computer experience
- Combined with my job experience.
- Went on for BS in information science.
- My employer contacted Harper for employees to hire.
- I began my career in the mailroom, and with education and determination up-graded my position.
- They wanted an AS degree
- The assembler course (110 helped) we are an assembler shop.
- Using Harper as "past experience"
- By having some DPR education.
- Because I had gained knowledge about computer industry.
- Understanding the logic used in data processing.
- Was accepted for my position because of my degree.

DPR Courses Helped Student Obtain Present Job (continued)

- I got a job in data processing with same company I was working for.
- If I hadn't learned the programming language at Harper I would not have gotten the job.
- The MIS department needed a trainee programmer.
- I became a programmer after taking several programming classes.
- There was an opening as a programmer in my company and the courses allowed me to be qualified and considered.
- Back in the days of the placement program, Harper got me an internship which lead to my current job.
- Teaching data processing
- Knowledge of data processing gave me the administrative for supporting an automated order processing system.
- I was in finance, however, management was aware of my courses and asked if I would like to transfer departments.
- By education
- Started me on the road to learning computer programming.
- Certificate in data processing coupled with my MBA gave me an edge over other candidates.
- Through Harper I was able to get started in the field.
- They gave me the knowledge necessary to perform my job.
- Intern program.
- Went from student tutor to coordinator.
- Programming knowledge
- Computer background and a working knowledge.
- Provided me with the skills to do the job. Company had hired previous Harper graduates.
- Data processing courses (RPG and Systems Analysis) - reason for present job.
- All courses, especially assembler.
- Accounting is done with a PC
- Data processing internship program
- Programming classes (Cobol and Assembler)
- By having classes in assembler, I was able to feel confident during my job interview and have little trouble in training class.
- They formalized my data processing skills which were required for a job.
- Helped me operate micro-computer, CRT and printer.
- Taught me the basic programming skills and languages.
- Harper supplied the BAL needed for my job.
- Demonstrated initiative/skills
- I use structured programming, Cobol, Basic, good grades in DPR courses.
- Although I am not using IBM or a language I studied, the logic, the programming is the same.
- After my first class I knew enough about computers to get my present job.
- The foundation that I received from the program and my knowledge of assembler.
- It gave me the education I needed.
- JCL, BAL, COBOL, maintenance experience.
- Through Harper's internship program
- Needed someone with knowledge in system operation and maintenance.
- Hired as a trainee
- Because of my education I was able to work my way up to my present position.
- By using programming techniques.
- Employer contacted Harper instructor for job applicants meeting specifications (A in DPR-110).

DPR Courses Helped Student Perform Better on Present Job

- Did not specify — 16
- Obtained understanding and skills also micro computer knowledge and course experience.
- The DPR classes gave me a good background in structured programming.
- I am able to use knowledge gained from classes.
- Data processing courses using Lotus 1-2-3 aided me on the job. Also more confident with computers.
- Understand relation between hardware and software.
- My present position involves programs and work on the PC.
- General programming knowledge has helped in some areas.
- We were beginning to offer courses in this area.
- By being able to do my job with little guidance.
- The logic course helped the most.
- Enhanced my background in teaching.
- Job advancement paralleled education (programmer, supervisor program operation, manager, system analyst).
- I understand computers and software better than most word processing secretaries.
- I have had several jobs since leaving Harper - data processing knowledge gave me an edge over others in these jobs.
- It provided comprehension with other functional programs.
- Very comfortable using Lotus software on PC
- Minor only by greater understanding of DPR.
- Understand programming and operating systems.
- Better able to understand and solve problems more timely.
- Increased knowledge
- I use BAL and took DPR-210 while employed.
- I have enjoyed continued on-the-job advancement
- Better understanding of computers/programming.
- I learned more languages and better programming techniques.
- Better utilized computer applications.
- After having been out of the work force for 5 or 6 years, they greatly helped me regain self-confidence in my intellectual ability.
- Ability to analyze situations, to improve systems as a whole and to act confidently.
- Understanding the logic used in data processing.
- Background data processing knowledge.
- Reinforced concepts taught in my field.
- Through the knowledge that I have gained.
- Gave me a better knowledge of computer programming. I was able to write more complicated logic, in different languages on different machines.
- With regard to office automation and engineering.
- As I understand the programming process used in insurance payment program.
- I understand the workings of the computer.
- The knowledge gives me a system understanding.
- New computer programmable equipment
- Gained better insight of PC's, micro's, management techniques.
- Understanding computer functions
- DPR is used in office
- Allowed me to take on more responsibility, upgraded my job, more knowledge.
- Ten years ago I programmed Cobol, now am currently in RPT-11
- Good knowledge and practice in programming.
- I have written four programs to make less paper work and manual work.
- DPR courses provided required knowledge for job.
- Had to have some knowledge of CICS for this job.
- Good Cobol skills (debugging/programming, logic).

DPR Courses Helped Student Perform Better on Present Job (continued)

- More insight into programming, systems design, data communications.
- Particularly word processing, database
- Analytical skills, design, in-depth logic, are now put to use.
- More knowledgeable about computers and programming
- Programming RPG
- Ability to use software package knowledge of systems.
- Each class made me better able to trouble shoot problems in software.
- Helped me to write structured code.
- More access to data center.
- I am using assembler, JCL, and file information learned in 110, 202, 203..
- Gave me broader knowledge of mainframe and PC's.
- Mostly the system classes to understand and interpret the companies needs.
- Programming classes are very good.
- The more I understand how computers work, the more I understand our systems.
- Better understanding of data processing able to help others.
- Upgrade skills in programming.
- I was hired as an RPG programmer. I took the RPG course at Harper that summer.

DPR Courses Helped Student in Present Educational Situation

- Did not specify — 5
- To get my certificate
- I know can go on and get my bachelor degree.
- I have completed 33 hours of courses in the program.
- Several courses transferred to NIU.
- Understanding of capabilities of system in administration department.
- I have transferred most of my courses to the other school.
- Helped me decide to get a BS in computer science at NIU.
- I am enrolled at Roosevelt University in the BUS degree program.
- I developed better study habits and better test grades.
- Will begin my MBA program.
- I plan to transfer to a four-year university.
- All the classes that transferred to Roosevelt are helping me complete my BA in DPR.
- I now know that I definitely want to be a programmer/analyst after attending two years at Harper in the data processing program.
- To further my chances to go to graduate program at university.
- Broadened my background for teaching.
- Seeing a bachelor's degree.
- Helped me update my field for I was a homemaker and mom for 8 years.
- Courses toward my bachelor degree.
- It has helped me be more critical and selective in courses I am taking.
- The Cobol and Assembler classes I attended helped tremendously. A good base to build on.
- When transferred to a four-year college, used DPR courses for business school.
- The associate degree helped in obtaining my BS in computer science.
- I am now taking a C Programming class at Roosevelt.
- Self satisfaction of completion.
- Am using skills on voluntary basis at church.

Value of the Data Processing Course to These
Students on Their Present Job or Their
Present Educational Situation

<u>Course</u>	<u>Number Taking Course</u>	<u>Value Index*</u>	<u>PCT who Did Not Take Course</u>
DPR-123 Spreadsheet for Micros	21	2.48	86.2
DPR-210 Advanced Assembler	28	2.36	81.7
DPR-123 Decision Support for Micros	16	2.31	89.4
DPR-106 Computer Logic & Programming Tech	201	2.29	3.4
DPR-208 Advanced Cobol	121	2.17	29.7
DPR-108 Cobol	196	2.16	3.9
DPR-125 Word Processing for Micros	17	2.00	88.9
DPR-110 Basic Assembler Language	160	1.89	14.4
DPR-160 Intro to Pascal	28	1.86	81.3
DPR-203 Systems Analysis and Design I	170	1.81	14.1
DPR-204 Systems Analysis and Design II	129	1.80	27.9
DPR-170 Intro to Data Communications	80	1.80	50.0
DPR-202 Programming Systems	97	1.76	41.9
DPR-130 Basic for Business	35	1.74	78.1
DPR-270 Data Communications Applications	25	1.72	84.7
DPR-122 Data Base for Micros	26	1.69	83.1
DPR-240 Advanced RPG-II	13	1.62	91.8
DPR-101 Intro to Data Processing	198	1.58	5.7
DPR-150 Business Fortran	32	1.50	79.2
DPR-135 Computer Operator	21	1.48	86.3
DPR-140 Report Program Generator (RPG)	74	1.23	55.4
DPR-142 PL/1 Programming Language	28	1.21	82.2
DPR-120 Intro to Business Software Pkgs.	10	1.20	93.5

*Value Index: 3 = Of High Value
2 = Of Value
1 = Of Some Value
0 = Of No Value

**Frequency DPR Courses Were Taken
By These Students**

<u>Course</u>	<u>Percent of Students Who Took Course</u>
DPR-106 Computer Logic & Programming Tech	96.6
DPR-108 Computer Programming - Cobol	96.1
DPR-101 Intro to Data Processing	94.3
DPR-203 Systems Analysis and Design I	85.9
DPR-120 Intro to Business Software Packages	85.6
DPR-204 Systems Analysis of Design II	72.1
DPR-208 Advanced Cobol	70.3
DPR-202 Programming Systems	58.1
DPR-170 Intro to Data Communications	50.0
DPR-140 Report Program Generator	44.6
DPR-130 Basic for Business	21.9
DPR-150 Business Fortran	20.8
DPR-160 Intro to Pascal	18.7
DPR-210 Advanced Assembler	18.3
DPR-142 PL/1 Programming Language	17.8
DPR-122 Database for Micros	16.9
DPR-270 Data Communications Applications	15.3
DPR-123 Spreadsheet/Micros	13.8
DPR-135 Computer Operator	13.7
DPR-125 Word Processing for Micros	11.1
DPR-124 Decision Support for Micros	10.6
DPR-240 Advanced RPG-II	8.6
DPR-120 Intro to Business Software Packages	6.5

**Skills and Competencies Which Were Not Developed
At Harper But Which Would be Helpful Now in the
Employment Situation**

<u>Data Processing Skills</u>	<u>N</u>	<u>PCT</u>
More knowledge about JCL	118	55.4
More Knowledge about OS	93	43.7
Microcomputer Applications	52	24.4
Standards of Programming and Documentation	29	13.6
Systems Design	23	10.8
Systems Analysis	18	8.5
Structured Analysis and Programming	16	7.5
Other DPR Skills (mostly on-line programming, database and telecommunications)	43	20.2
<u>Communication Skills</u>		
Presentation Skills	55	25.8
Technical Report Writing	41	19.2
Business Report Writing	41	19.2
Other Communication Skills	6	2.8
<u>General Business</u>		
Management	47	22.1
Finance	23	10.8
Accounting	20	9.4
Other General Business Skills	12	5.6

Number Responding to Items

213

Other Data Processing Skills

- IMS on-line programming — 2
- Course specifically on Unix O/S
- Utilities, main frame packages, i.e., TSO/ISPF, Panvalet, message format services, CICS, IMS, Data Base structure
- Software engineering
- Database on large systems
- Use of database
- More information on how to store program data, files, etc.
- Database design and use
- IMS, Database communications
- Telecommunications and networking
- Operating systems (UNIX) languages "C" and Shell (for UNIX)
- UNIX operating systems and programming courses
- Microcomputer assembler, Cobol, and more micro computer courses in general
- Hard to specify any one thing because each company does things differently. I would have liked JCL, but my company is not an IBM shop.
- Data communications and telecommunications
- All programming courses are aimed at accounting and inventory. They should also include marketing applications and statistics - more for my needs.
- Software packages
- Instructor in use of common software such as IMS, CICS, etc.
- Data structure (or info structures) - example - linked lists, stocks, guides, VSAM, random reads, (maybe more of a mathematical approach to things) and teach on-line concept at least
- CICS
- A database class should become part of core required.
- Database design, database applications, 4th generation languages
- Advanced data communications PC, local area networks, CICS
- Telecommunications access methods
- IMS
- IMS, CICS, Database design
- Building files, we always accessed files that were built for us - in the business world you have to build your own files.
- I think Harper has a great data processing program compared to other schools at any price.
- Heavy JCL should be taught to people in or entering any DPR related field.
- Courses I am taking in languages work on basics of the languages at a slower pace. More emphasis is placed on knowledge of the languages than its use in a business environment.
- Creating your own JCL, also an advanced CKS class
- Five years experience so I could have gotten a programming job at half the salary I am earning now - I would have taken the cut.
- Database's and programming techniques used when databases are involved, e.g., IMS, ISMS.
- Database management
- More knowledge of OCL
- Courses dwell too much on "specifics" not concepts
- I wish C programming class was offered and also need a class in Pick Operating systems and data
- Only those developed at Harper
- More experience in creating test data, and working with programs that have various files as output instead of reports should be stressed more in advanced programming classes
- "C" language and UNIX/OS
- Does not apply with my field

Other Communication Skills

- Technical reports for non-technical persons
- Something on dress/interviewing
- Business graphs on micros
- I believe any skills that would affect what I am doing now were, in fact, offered at Harper. This holds true for communication and general business categories. I have heard that JCL course work may help some students but, since I am not in a mainframe shop it would have no effect on me.
- User interaction
- I took these classes and found they did not relate.

Other General Business

- Office politics
- Marketing
- Managing People
- MRP
- Typical accounting applications in DPR
- Took all of the listed
- Marketing research after all computers were initially used to tabulate results of political polls and census for size of population
- Note - I did take accounting and found it very beneficial - also business math.
- Engineering
- Insurance
- Intra-company relations
- Actual business flow and operation

What Additional Training Should Today's DPR Student Receive to Prepare Them for a Job in This Field

	<u>N</u>	<u>PCT</u>
Data Base	120	62.8
OS JCL	109	57.1
CICS	102	53.4
Micro Computer Applications	65	34.0
IMS	64	33.5
Teleprocessing	59	30.9
Structured Programming	47	24.6
Interactive Processing	45	23.6
Data Security/Data Privacy	41	21.5
Structured Design	35	18.3
Distributive Processing	30	15.7
Other	36	18.8

Other Additional Training Needed for Today's Students

- Micro communications - example, networking
- VDM
- Writing skills
- Software engineer, AI
- VIAM
- All the ads I read for data processing positions require at least a year's working experience in that field.
- I am not sure.
- Any type of job related or internship experience.
- "C" and UNIX, Advanced Pascal
- MRP
- Model applications theory
- In-Depth background course for LAN
- UNIX, "C" Programming, SNA
- This all depends on the aspect of DPR you want to enter. I am in operations, and the programming classes I was in simply do not apply.
- Easystrieve, debugging
- Data set crisation, JCL utilities operating systems, how to write JCL to go along with programs, good design of programs.
- BAL, RPG, more exposure to hardware - mainframe need IBM, VAX, Data general, H.P.
- Information management systems would be big plus for Harper.
- VSAM basics, modular programming - third and fourth generation languages, EXTREIVE, DYLAOKR, etc.
- The context of the courses should be changed dramatically to include other business applications besides accounting and inventory.
- Data communications, micro computers to mainframes, modems, voice data transmissions, etc.
- I think a strong internship program might help students more in getting a job in DPR than the AS does. Then structure courses for what these companies decide is necessary.
- Desk top publishing.
- Documentation
- More data communication courses
- PC networking, LAN
- Numerical control is a "hot" field and students should be aware of it.
- Heavier BAL on both mainframe and micro.
- 1) Cullinet ADS/on-line application generator, software training, 2) Cullinet IDMS/R.
- Unable to answer as I did not go into the field.
- Internship - I had a very difficult time even getting an interview with DPR experience.
- More up-to-date PSM languages such as C. Also need a class on Pick operations system and PSM in data basic.
- More Pick Operating System.
- Communications, both written and oral
- UNIX and C

Data Processing Seminars, Courses, and Workshops Student Has Attended At Harper College

Responses

- DPR-101, 106, 108, 123, 130
- DPR-101, 106, 108, 110, 140, 203, 204, 150

Data Processing Seminars, Courses, and Workshops

Student Has Attended At Harper College

(continued)

- None since graduation — I completed a BGS degree from Roosevelt.
- DPR-203
- DPR-101, 106, 108, 110, 140, 170, 202, 203, 204, 208
- DPR-101, 106, 108, 110, 203, 208, 210, 204, 202, 170
- DPR-101, 106, 108, 123, 124, 130, 140, 203
- DPR-101, 106, 108, 110, 208, 202
- DPR-101, 106, 108, 125, 203
- DPR-101, 106, 108, 203, 110, 170
- DOS
- DPR-101, 106, 108, 110, 203, 108
- I have Harper certificates in Data Processing technical and Data Processing - micro computers in business. DPR courses 106, 122, 123, 124, 125, 130, 135, and 170.
- DPR-101, 106, 108, 203, 204
- All courses in AAS Program
- Through Harper I attended a Symphony advanced seminar at Computerland.
- DPR-106, 108, 140, 150
- DPR-101, 106, 108, 135, 203, 204
- A seminar on data processing resumes
- DPR-101, 106, 108, 110, 202, 208
- DPR-150, 160, 108, 110, 125
- I have finished data processing technical and data processing computer operation certificate and still taking courses to transfer to four-year school. I have taken Cobol, JCL, C-operation, programming logic, programming system, and for internship in C operation but unfortunately could not find as computer operation.
- DPR-101, 106, 108, 122, 123, 124, 125, 130
- DPR-101, 106, 108, 130, 160, 203
- All the basic courses needed to obtain a two-year degree
- Various seminars offered by academic computing in the computer lab - D Bldg.
- Just credit DPR courses
- Short courses by Haffner, IBM-PC-DOS, advanced and several others.
- Have attended all of the courses I checked on page 3 plus DPR-121
- No seminars or workshops, just courses as marked on page 3.
- All courses in DPR at Harper, DPR-101, 106, 108, 208, 110, 170, 201, 202.
- DPR-101, 106, 108, 203, 208, 110, 170, 140, 202, 204, 270.
- DPR-101, 106, 108, 110, 203, 204
- All required DPR courses for AAS degree in DPR.
- DPR-123
- CICS, IDMS, 4 Ger. Language, VIAM
- DPR-101, 106, 122, 123, 125, 130

Data Processing Seminars, Courses, and Workshops

Student Has Attended In Industry

Responses

- Natural, CICS, VSAM
- Pansopher - Easystrive
- Burroughs customer education center, Oakbrook, B-1000 Basic System Support
- Data Base design, message format services, JCL, IBM Utilities, TSO/ISPF, project management, screen plus, linkage editor, modular Cobol Programming, Initial DBA Philo Training. (DEB's, PSB's, and ACB's)
- Burroughs "Work Flow Language", "Advanced Cobol", "Reporter 3", "Insight", "A Series Systems".

Data Processing Seminars, Courses, and Workshops
Student Has Attended At Harper College

(continued)

- None since graduation — I completed a BGS degree from Roosevelt.
- DPR-203
- DPR-101, 106, 108, 110, 140, 170, 202, 203, 204, 208
- DPR-101, 106, 108, 110, 203, 208, 210, 204, 202, 170
- DPR-101, 106, 108, 123, 124, 130, 140, 203
- DPR-101, 106, 108, 110, 208, 202
- DPR-101, 106, 108, 125, 203
- DPR-101, 106, 108, 203, 110, 170
- DOS
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- Burroughs "Work Flow Language", "Advanced Cobol", "Reporter 3", "Insight", "A Series Systems".

Data Processing Seminars, Courses, and Workshops
Student Has Attended In Industry (continued)

- IBM 3090-400, PPW, PIP, Advanced Systems Institute.
- Altos Computer Roadshow
- IMS, Clist, Cobol II. Expeditor (debugging tool).
- IBM, RPG-II workshop
- CICS, OSJCL, another language course used on data point computers called Databus, Lotus and D-Base II.
- Microcomputer workshop, PL/M Programming at Intel Customer Training.
- Focus, Multiplan
- Basic Four B-100 Intermediate Programming, Basic Four Users Group Meeting.
- IBM training systems for ICCF, IDMS, DLI.
- SRAO facilities and concepts, OSJCL, Utilities, Basics in Easysttrieve, ETA courses-(1) IDMS/R, (2) Mapping Facilities for INS/R, (3) also advanced programming techniques in Metafile, advanced Lotus, Intro to word perfect, engineering.
- Networking, Microcomputer applications, and management techniques.
- Expeditor, Data dictionary IMS, BTS, TSO/SPF.
- Data communications, American Management Association courses on a variety of NCR operating systems, languages, and SNA communications.
- Systems administration on a 382/400 UNIX
- Company seminars on communications, DOS, and various software packages.
- Operations on a Burrough's system.
- Deltak courses in JCL, CKS, Structured Analysis, Cobol efficiencies.
- Easysttrieve.
- Ware, effective business writing, design considerations.
- Various application seminars through Chicago computer society
- IBM system/36, Mapics users group, (MUGNI) monthly meeting
- Attended presentations of various software packages.
- Cobol workshop - IBM
- Deltak, company's CICS, VSAM courses OSJCL, JAD, Extrrieve, VSAM optimizations
- ACP/TPF related coursework and study.
- Many IDMS, ADS, OSJCL, CULPRIT, IDD Structure design
- Cullinet, IFMS/R, ADSO, DATABASE, Analysis, and Design
- N/C Programming
- UFO Training Class
- IMS< JCL, RAMIS, D-Base III, Lotus, Structured testing, Easystride, OS Utilities
- OMNI Users Convention for IBM System 34-36
- Hewlett Packard Seminars
- Micro repair, micro ideas, education, IBM, DOS, IBM education software
- Apple-advanced graphics, Apple-advanced, file structuring.
- "Train the Trainee" - how to train employees in your office, methods of presenting material relevant to the job.
- Easysttrieve, Cobol II, DL/I
- CICS, Telecommunications, Assembler Review
- OMNI, IBM Users Group, Common Conference
- Many data processing courses
- UNIX and C
- NOMAD, IMS DB/DC
- In-house workshops on VAX equipment
- IBM Shane, Guide, Sperry USE conferences and numerous technical and management ADP courses.
- Three-day seminar on Focus, workshop on Discuss, Seminars on CICS.
- TSO, JCL, SAS, microcomputer spreadsheets, Lotus 1-2-3, Data Base, Data Point, and Metafile.

Data Processing Seminars, Courses and Workshops
Student Has Attended In Industry (continued)

- Roscoe text editor and job aid (JCL checker and Cobol syntax)
- IBM-PC Training
- IMS Database, Excelator
- Workshop on specific new pieces of software on the Vax.
- Lotus workshop
- CICS, 4 courses on telecommunications, 4 courses on JCL, 4 courses on MVS, 1 on systems, 2 programming, 2 on JESL, 2 on Roscoe, 2 on JCL utilities, data base design utilization, 3 on ADC-2, 1 on Netman, 1 on CICS, and 2 on Omegaman.
- A dozen trade shows manning a booth and as a member of the DPMA.
- S/36 upgrades, IBM S/36 operations, AMA Introduction to Management, IBM DOS/Use
- Lotus, electronic mail
- IBM-DOS general information
- All knowledge self-taught
- Data base engineering design application AT&T teleprocessing AT&T
- Micro processor applications Dept. of Defense
- Past, XEDIT, REXX
- Administrative functions (Wang) previous job required and paid for it. A fun seminar but they wasted their money. You probably don't want opinions - sorry.
- IBM guided learning center classes
- Desktop Publishing
- IMS, JCL
- IBM copies for Bills of Material
- User oriented training courses
- Converting from DOS/VS to DOS/VSE "ICCF" IDMS Database class (about 5-6 offered when DB was bought).
- Took PC courses offered at Wang lab. Also took operations course.
- DPMA meetings and conferences

Seventy students or 31 percent have attended seminars, courses, or workshops in industry.

Data Processing Seminars, Courses and Workshops
Student Would Attend At Harper College

- Micro Computer Communications
- OS VCL, Database, data security and privacy
- Open to suggestions and ideas
- Communications
- Overview of CICS
- I no longer live in the Harper College district. If I were interested, I would probably attend Oakton Community College. I would like courses in Database, IMS, and CICS.
- CICS, JCL, Database Management
- IMS, CICS, anything system related
- Job opportunities and what is expected for that particular job (job description). Real world computer applications for non-technical persons (non-programmers, etc.)
- UNIX, C language
- As many as possible
- IMS

Data Processing Seminars, Courses and Workshops
Student Would Attend At Harper College (continued)

- Computer operations/helpful. Tips, data manager, managing a data processing department.
- UNIX, Advanced PASCAL, 8088 Assembly language (IBM specific)
- I cannot say right now - I have mentioned in No. 15 what I have had. If something else was offered that I was interested in I would attend.
- OSJCL, IMS, CICS, teleprocessing, database design techniques, CICS, and JCL
- As in industry training
- Set something up, inform me, and I will be happy to come. That is spreading the news to all concerned that you have something that is quite worthwhile.
- OS-JCL, telecommunications
- 4th or 5th generalization languages
- Vendor comparisons, mainframes, micros, transaction, processing systems.
- UNIX (disk operation system) C language, Shell language, Lotus 1-2-3 (application program) D-base.
- Put them on the roster for I feel they would warrant adequate attendance.
- If I had the prerequisites, I would take IMS, Database, Operating systems.
- Database structures
- Now that I am employed full time, enrolled part time at Roosevelt University and attending seminars and courses for the office I do not have the time for Harper. In five or ten years, I may become interested.
- Information management
- Field trips to installations
- Software packages demonstrations. In-depth applications seminars.
- C-DOS, advanced data base applications/programming, desk top publishing, working with RAM resident programs.
- CICS, Database
- Advanced Pascal, computer programming for market research, writing a data base program for micros (INIRO and ADV) much of what is available in stores is not flexible enough.
- Telecommunications, programming, internship, and about latest technology as far as telecommunication is concerned.
- As much as I am interested in learning data processing related courses, I just do not have the time to pursue them simply because my work and my family responsibilities take up all my time.
- All, if time permits
- Courses on Lotus 1-2-3
- Micro-Computer workshops
- I am living in England now so would be unable to attend any, unfortunately.
- Desktop publishing
- I would attend a seminar or workshop
- Unfortunately, still working on my BA in my spare time, allows me little time to pursue any Harper classes, so, none, for a while.
- A course on DOS, on C language for micros, on Assembler language for micros.
- IBM, DB/DC-database design, logical VS physical VA, relational databases.
- IMS, CICS, OSJCL, all seem to be "desired" when looking for employment
- Data communications advanced, O/S-local computer networks, JCL
- PRX's - ones useful for high school curriculum
- Database IMS. micro seminars on workshops. The area of micro processing has grown since I was at Harper. I plan to expand my knowledge from mainframes to micros.
- Basic programming for PC's
- ADP training for AIR when they used to do our AIR processing
- Database, IMS, CICS, Telon.
- Should attend micro workshops - intro to S/W, spreadsheets, and Lotus, symphony

Data Processing Seminars, Courses and Workshops
Student Would Attend At Harper College

(continued)

- DP related business operation, management - I have never received any information re seminars and workshops, but would like to.
- Applications and networks, LAN
- Morotola has internal seminars, courses and workshops.
- Advanced RPG II
- Graphics and artificial intelligence
- Database, IMS, CICS, Design/Development methods advanced assembler.
- Micro related for MS/DOS operating system - OSJCL
- Anything on relational database current trends in the DPR area.
- I am employed full time as a mainframe (Honeywell) programmer. Since I learned and worked with micros for 2 years and bought an XT, I am still interested in doing something with micros. If I do see that I have a chance to make the switch, I would probably take some micro-programming, database, and DOS classes.
- Pick operating systems data basic programming.
- Direct Operating System
- Data communications, management
- MS DOS or PC DOS
- Kemper offers many courses, including self-study CICS, and others taught by instructors. If these were not available, I probably would avail myself of courses Harper offers.
- Any classes on how to purchase a computer, additional hardware and software, as an independent employee.
- Database, robotics
- MS-DOS, Management Seminars
- JCL, IMS.

Seventy-four students or 33 percent would attend data processing seminars, courses, or workshops held at Harper College.

Specific Comments About the Faculty.
The Courses or the Relevance of the Curriculum

- I did not have very good experience with the part-time teachers at night course. A lot of people who attend those classes are already working in the field. The teachers forget that there are some people who do not know anything about the subject and move the classes too fast.
- Excellent program — better than most 4-year ones.
- I was very impressed with Harper and the staff.
- In a few instances it was a canned class and the instructor had problems answering questions that did not come from the course notes and got irate when pressed for a straight answer. I feel if you cannot answer questions like that you are not prepared to teach!
- The faculty and courses were competent and well organized.
- The following teachers receive special note of "outstanding" - Mr. Stieberg, Mr. Singelmann and Mrs. Longhurst.
- After transferring to a 4-year college, I found DPR-106 gave me a distinct advantage over other students.
- The faculty does try, even if they are average or worse — you can do worse at a four-year college.
- Instructors: Paul Sunko, Accounting, John Steiber, Adv. Assembler of Program Systems, and Joe Sternberg, English - are excellent instructors that played an important part in my success. Accounting is important in business programming. Assembler and programming systems are important to understanding the computer.

Specific Comments About the Faculty, the Courses
Or The Relevance of the Curriculum (continued)

- It is essential to be able to express yourself clearly and intelligently on paper. Social science was a waste of my time. Harper offers a very good data processing program.
- Most of the instructors I had were very good — only a few disappointed me. The class which would have been most beneficial is IMS on-line programming.
 - Very good program, it has helped me with my job.
 - It would be helpful to include more courses on the microcomputer. Another advanced course in Lotus with more time to learn about macros would benefit me.
 - Most part-time data processing teachers were terrible. Did not know how to teach, usually read out of the book word for word, and were not able to answer questions from the students.
 - Courses should be planned out more so that students do not have to jump back and forth between topics, and so students can anticipate what to concentrate on for tests. Also a better selection of books are needed, books that pertain more to the course and books that are more complete and better indexed.
 - The courses were OK but the time it took to get your case back from running it was outrageous.
 - The teachers I had were excellent. However, there were some part-time teachers (my son's) that were not very conscientious. He completed and passed DPR-101 without ever doing a program.
 - I felt that the accounting teachers presented the material in a manner which was difficult to understand.
 - There is not enough time to ask questions. It is also hard to get in touch with the teacher when something was not clear.
 - I understand that there should be more allotted time for testing CICS application programs at Harper.
 - The work program should offer more assistance in finding jobs.
 - Need to teach about database
 - The quality of your DP teaching staff is extremely uneven. The college seemed to make no effort to observe the teaching quality of its staff - night and weekend students were not asked to evaluate these instructors. Shame!
 - The systems analysis (DPR-203 and DPR-204) were not realistic. Those were really the only courses I was very disappointed with.
 - I felt the instructors were all very helpful and knowledgeable in the courses they taught.
 - Since attending Harper I have found it very important to be able to obtain a BA without transferring to a university. Off-campus courses taught at Harper in order to fulfill the needs of a BA would be very helpful. I was an A/B student at Harper. Being a transfer student myself, I found it very difficult to transfer my skills to NIU, and I ended up dropping out and getting a job as a computer operator. Now I am a systems trainee.
 - DPR-101 instructor did not teach enough basic to give a background for programs that had to be written for 106, DPR.
 - No course selection for interactive data base construction and use.
 - Programming systems should have quizzes every other week as well as several major exams to make learning more understandable. CICS should have more CICS lab time than 1-1/2 hours a week OR should be offered only to those who have off-campus facilities to use.
 - For a junior college Harper is quite good - I wish the lab was open more hours.
 - It has been 3 or 4 years since I attended Harper. On the whole DPR staff that I came in contact with was very qualified and presented material very well. My only complaint was wasted time waiting for turnaround or computer generated output, and difficulty in getting time on terminals.

Specific Comments About the Faculty, The Courses
Or The Relevance Of The Curriculum (continued)

- Written exams in all programming classes should be open book, open note, as reference manuals are referred to constantly on the job.
- Mrs. Bender is an outstanding instructor. I believe she should be consulted on how to establish a standard for what should be contained in each course. What I am trying to say is that some courses contain more work than others depending on the section. Night and day courses should use same syllabus.
- Outstanding faculty — Peggy Babcock, Mike Duchek. Coordinator was very helpful when program difficulties came up and course objectives generally were current, relevant, and realistic for anyone wishing to work in DPR.
- I found my ability to read and solve a dump of great value. Not everything in the "real world" runs without a hitch.
- Programming systems and the teacher provided the most valuable information I received at Harper.
- Many times program language needed to write and run programs were not taught nor could be found in texts or materials provided. Slot of time and program runs wasted because of this. Many professors assumed students to be familiar with material never covered in previous DPR classes.
- A course in JCL could be offered prior to or concurrent with courses using the 3270 series terminals for better understanding of the system.
- Almost all the data processing courses are on Monday and Wednesday evening. I would like to see the schedule more versatile so a person could get their degree sooner.
- The computer operator (DPR-135) course was of marginal help. Teaching DOS on a mainframe system these days is like taking a step backward every time you go one forward — you get nowhere. An OS/MVS or higher operating system course would have been far more helpful — and reputable.
- I received a foundation in data processing enabling me to readily read and use software manuals, and feel very comfortable doing it.
- General course work and classes were excellent. But many items taught were not used in the business world (ISAM files) many students who were not working in DPR were given an unrealistic view of the work world due to impossible program deadlines based on the system resources available and poor execution turnaround on compiles and limited keypunch equipment available at the time I attended Harper.
- The course I remember being the most poorly taught was DPR-203. The material was presented on overheads and no personality!
- Some of the part-time faculty have no concept of teaching — you can learn more from reading your text. Most part-time faculty just do not care — poor teachers — Some are good if they know the subject or can communicate it to the students.
- Excellent curriculum and faculty — please advertise on a higher scale. And do not forget about your older students.
- DPR-108 instructor Jay Stone was outstanding, as was 206 professor Jay Singlemann. DPR-140 instructor was mediocre at best. Instructor was frequently late to class and often gave flippant answer to legitimate questions. I would have liked to have had a tour of the school's DPR center as part of one of my classes.
- Part-time instructors who held DP positions full time were more helpful in relating practical knowledge than full-time instructors — most instructors were part time which was beneficial to students. Maybe not for availability of help, but for their knowledge of DPR.
- Too much emphasis on programming — not enough time is devoted to good program design and general background of languages. More time should be spent on JCL, creating and working with data sets. Also OS should be taught — no company uses DOS anymore.
- The curriculum at Harper has benefited me a lot. To get a part-time job and to transfer to a four-year school.

Specific Comments About the Faculty, The Courses
Or The Relevance Of The Curriculum (continued)

- I found most instructors knowledgeable, however, there are a few who are not worth the money they are paid. I feel more teacher questionnaires should be filled out by students on teacher progress and if too many bad reports come in, a teacher should be evaluated during his/her class. I had one teacher who read directly from the book and could not discuss anything else about our questions in data processing.
- The system went "down" a lot at Harper - something that does not occur at my present school (ISU).
- The stressing of developing my programs in a very structured form helped, but most of the programs that I work with now have been so chopped up that one learns just to deal with things as they are. Also documentation varies greatly depending on where one ends up that all the fuss over documenting at Harper is not very relevant.
- Structured programming is great but not always realistic in the working environment. Also being flexible from system to system is very important. P.S. Not everyone uses IBM.
- The faculty were all very different from each other. The significance of their instruction will be more obvious when I am working.
- I would like to see more PC related classes. More in-depth PC class, e.g., delve more into the packages taught.
- Although I have not returned to the data processing field, my past work experience in DPR and accounting allowed me to praise the Harper program for its practical approach to the subjects and its thorough range of courses.
- Full-time faculty is out of touch with the "working" world in some aspects of what is actually needed.
- The only objection I had was at the time I had taken DPR-150 - the part-time teacher I had was only available once a week and no one else could answer questions I had regarding FORTRAN assignments. As a result, many times I spent 6 hours a day through trial and error to get the programs to work.
- All instructors expected a lot from the students which, in retrospect, I appreciate. The most frustrating aspects and probably the reasons for my premature gray hair were the lack of machine availability and long turnaround times.
- Mr. Singleman who taught assembler was demanding; however, I have learned and enjoyed a great deal. Basically, it is the self-discipline you learn that is so valuable in business world and the confidence you build in dealing with various situations.
- Enjoyed all courses taken at Harper. I developed many skills.
- Overall, I would give Harper a good rating. I felt the instructors and DPR courses were interesting, very well organized and well taught. Unfortunately, I have yet to meet anyone in industry that cared much about associate degrees. For the benefit of DPR students like me, Harper should continue to concentrate on transferability of coursework and communication with local universities. Communication with area businesses may help in setting up internships which probably would do better in providing jobs than a solitary associates degree or certificate would.
- DPR-106 and DPR-108 teachers were outstanding. DPR-101, while an overview type of course, still seemed too fragmented - there seemed to be greater variance in what different instructors did.
- The faculty should be more available to evening students.
- Full time - Gintowt - outstanding, Magno (math-Fortran) outstanding, another instructor, knowledgeable but poorly prepared lecturer, Lissey, very good. Part-time - instructor - awful, insensitive, arrogant. It is unrealistic to expect student enrolled in a night course to have to use open lab time that is only offered during the day. If they were available during the day, they would have enrolled during the day.

Specific Comments About the Faculty, The Courses
Or The Relevance Of The Curriculum (continued)

- I learned patience and perseverance trying to get my programs completed at school. When I started they did not have PC's - only a few Hewlett Packard terminals for what seemed to be a thousand people.
- Full timers, on the whole, were good. But I saw the good part-timers as more beneficial. They were in the industry and could comment on day to day life in DP land. Overall, I loved Harper. I was not a very good high school student and Harper gave me a second chance at education. I liked living at home, working part time and going through the internship. I know some people leave Harper and go to 4-year schools or out into the business world and think (after having learned some new tricks) "why didn't Harper teach me this?" or "why didn't Harper teach me that?" without ever thinking that you cannot learn the real or advanced stuff without the good solid base that Harper teaches you. These people do not realize that Harper is very good at what it does and everything. It really burns me up that people cannot be objective about this.
- Revamp Assembler course - the way it is presented it is a mess.
- Gene Longhurst was a very good teacher, Mr. Gintowt, also. Another instructor was not a very good Assembler teacher. The Assembler class should be taught by another teacher - it is too much of an important class to be taught the way it is being taught today.
- I think part-time faculty some times put less into their teaching due to the way Harper treats them. Unfortunately, some of the very good teachers were fired by Harper or they just refused to take Harper's regimen. I also feel night classes do not make the students work as hard as day students and that is too bad because the more work you put into it, the more you learn.
- Although the courses could be very frustrating I enjoyed them and learned a lot because I was willing to work hard on them. The fine teachers I had were extremely helpful and willing to give assistance whenever I asked.
- Most all of my instructors were part time and all were excellent - let you know what to expect in the business world - stressed those areas in teaching. Full-time instructor covered all material equally (some of which was irrelevant in business application).
- Use of IBM cards and poorly maintained remote batch equipment is inexcusable and unacceptable for the longest time, 1979-1985. Glad to see use of CRT's - should increase number of CRT's and availability to students.
- The "trial and error" method of learning languages was good, but at times I felt that a more logical, structured, cause and effect approach would be helpful.
- The homework assignments should be modified and/or drastically changed each semester. Each instructor should be responsible for designing homework assignments for his/her class. Multiple choice questions should constitute no more than 40 percent of any test given to the students. Many of the homework assignments contained ambiguous language, grammatical errors and awkward syntax.
- I am not sure why Assembler is required. I found no application for the course(s) and because of the professor and his attitude, have not continued my education in DPR at Harper. I did not do well in the course at all. Otherwise, I found all courses exceptionally beneficial.
- It seemed for DPR-101 and DPR-106, Harper took any warm body that may be could teach. Once a student made it past these classes, the faculty was excellent.
- Had Sat/Com in Navy which taught theory of data communications along with several specific systems (system repair, electronics). From my experience as a basic lab aide it appears that many DPR instructors are either not teaching the logic necessary for cases or not stressing it enough. Most students I have needed to help in DPR-101 and many in 106 had most or all instructions necessary but in the wrong order. Also they generally have no concept of the difference between screen memory, internal memory, and external memory (disk).

Specific Comments About The Faculty, The Courses
Or The Relevance Of The Curriculum (continued)

- On an overall, I found a lot of energy on the staff, but a small quantity of them, one in his 22nd year with the same subject, had lost the fire that students require. In some teachers, I think their flare for their subjects will lose luster.
- Most of the part-time instructors who have jobs in industry do not know how to teach, even though they may know the material. They assume that students know the subject matter upon entering the course. Most full timers are wonderful.
- At the time I transferred to a university, my flow charting techniques were not structured.
- An excellent or very good program taught what was directly applicable to applications programming and designs.
- Heavier mainframe background. A presentation of various computer operating systems. Glad to see micro courses.
- I feel I learned more from the Harper faculty in handling problems and solving problems in the data processing field. I feel I took a few steps back transferring to NIU's data processing department.
- Deb Hale was a fantastic teacher - it was easy to learn from her. I use a computer every day and I feel that it should be required that an accounting major take as many software classes as possible.
- I had some teachers who felt that putting a transparency on an overhead projector, reading the transparency, then moving on to the next one is called "teaching". For the amount of money I paid, I felt this was very, very unsatisfactory.
- I went to school days and the faculty was tops. DPR-106 is a must! I wish everyone in DP had to take it. Assembler should always be required.
- Without DPR-202 I would be completely lost in my job. I did not totally understand when I was taking the class but now use everything (create JCL, clusters, calculate disk space needed-both by tracks and blocks, etc.).
- There was only one course where the teacher was not good at all because he would give grades on homework without specifying what was wrong on the assignment so that we could rectify and learn from our mistakes.
- What are the possibilities if you change the program from an AAS to AS?
- Because I was already working in a data processing job the prerequisite caused me to progress toward the courses I really needed, too slowly.
- Most of the faculty were good - the only class I felt I got nothing out of was RPG - the teacher was very poor in getting his ideas across.
- The part-time faculty were overall better because most were currently employed in the field and could give insight into what was really happening out in the "real world."
- My experience was that full time were better instructors. Part time had more practical knowledge and were able to apply to the "real World" as they called it.
- I feel that the amount of material covered in DPR-202/programming systems was excessive, and/or the way in which that material was presented was unsatisfactory. The text was packed with information, but poorly written. The infrequency of testing and, thus, the large amount of material covered, and the importance of each test prompted memorization rather than understanding.
- Would like to specifically congratulate the fine teaching of Professors Longhurst and Singleman.
- Faculty - very knowledgeable. Curriculum needs more "real world" applications. For this I was not prepared. Perhaps more system info on other hardware, not solely IBM.
- The full-time instructors were far better than the part-time instructors.
- I felt that D. Hale, S. Dewey, and R. Uhrina were my best teachers.

Specific Comments About The Faculty, The Courses
Or The Relevance Of The Curriculum (continued)

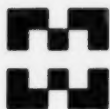
- My very first instructor was foreign - he only lasted one week - no one could understand a word he said. Thanks to a quick response to student complaints we had an excellent replacement immediately.
- Although the faculty were knowledgeable, they were not all very good communicators. Some talked too technical, assuming that you had DPR experience.
- I do not know if the instructor is still there, but the COBOL teacher (from 1982 fall) - to put it mildly - was not good. This instructor was not willing to help on a one-to-one basis. Assembler teacher was excellent.
- Most of my classes were good. My accounting class was not taught well and the RPG class was a total waste of time. The instructor was terrible. My intro to data processing instructor was outstanding - he was the one who motivated me to go on.
- Only wish they had taught me years ago when I was in the work field. Would have been very beneficial both economically and self-satisfying.
- I feel the curriculum is excellent and provides an excellent foundation. The only negative thing I have seen happen to the program since I started was discontinuing the internship program. Try as you might, classroom experience does not equal work experience. Since many students intentions when entering the program is to obtain the knowledge that will lead to a DPR job, the contacts made by such a program and the insight gained in the real work world would be priceless to the student.
- Good staff and courses.
- I would like to see more emphasis placed on writing JCL, instead of learning all the details of operating systems.
- I was pleased with education and it helped me reach my goals.
- I felt the part-time instructors introduced more real world situations than full-time instructors did.
- I felt the English classes required for a certificate were irrelevant and did not help me at all.
- Almost all of the instructors (part-time) I had at Harper were outstanding. I had one who, although he was very knowledgeable, could not present the material in an understandable manner. I had two instructors who were totally unsatisfactory.
- I would like to see less emphasis on business courses - substitution of DPR electives for ECO-200 and MGT-111, for the associate degree program.
- I have taken word processing courses and I am using these courses to make a living. The Associate degree was taking too long since I could only attend classes part-time. I hope that I can return someday since I really enjoy these courses.
- Unfortunately I was unable to find a job in the field after much searching. However I am not sorry I returned to school - it was a very positive experience and the rewards cannot be measured in dollars and cents. Presently, I do have a good job with a lot of opportunity to grow and I am very happy in what I am doing.
- Many people are using Apple - I think that Harper is missing a large market of customers that use Apple and want to learn more about how to use them and programs for Apple computers.
- I feel very strongly that students should be allowed to monitor their work on the terminals instead of waiting for a listing to come out two hours later and find out that a syntax error occurred.
- There is a question I think should be added in the area of course presentation. I have attended many and taught DPR courses. I think that more attention could be put to the student on understanding more so that a grade given under pressure of a time and exam.

Specific Comments About the Faculty, The Courses
Or The Relevance Of The Curriculum (continued)

- DPR-170 moved slowly and the teacher was not there quite a few times and we ended up repeating classes with substitutes. I dropped the class and ended up reading the book myself.
- Some of the classes marked "did not take" were taken at other colleges and assuming the course context is similar, I place Fortran, Pascal, Intro to Data Comm. and advanced Assembler as "of value". The other "did not take" courses sounded interesting and (some were not offered 1977-81) I still may take them.
- I feel I got an excellent education at Harper and I want to thank all the teachers that helped me. My bosses were surprised at some of the things I knew when I started out. THANK YOU!

APPENDIX

Cover Letter and Survey Instrument



William Rainey Harper College
Algonquin and Roselle Roads
Palatine, Illinois 60067
312-397-3000

Spring 1987

Dear Present or Former Data Processing Student --

We need your help!

We are attempting to determine how effectively the Harper College data processing program is serving or has served your needs. We need to know how this program could be changed if it is to better serve your needs as well as the needs of future students. Attached is a short questionnaire that will allow us to determine potential needs.

We would appreciate a few minutes of your time to complete this survey form. Please be assured that we will not identify you with the results of this survey. The number on the survey identifies you to our personnel only and when we receive your completed survey enables us to remove your name from the mailing list so you will not be bothered with our second mailing of the survey or a follow-up telephone call.

A stamped, self-addressed return envelope is enclosed for your convenience. A copy of the completed report will be made available to you upon request.

If you would like to have more information about the program, please do not hesitate to call me and I thank you for your help.

Very truly yours,

Ernst Rilki

Ernst Rilki, Coordinator
Data Processing Program

jc
Enclosures

FOLLOW-UP SURVEY OF
DATA PROCESSING STUDENTS

1- What was your enrollment goal when you entered the data processing program at Harper? Check (✓) one.

- ☐ A. To take a few courses
- ☐ B. To earn a certificate in data processing
- ☐ C. To earn an associate degree in data processing

2- What was your expected outcome as a result of enrolling in the data processing program at Harper? Check (✓) one.

- ☐ A. To take data processing courses as an elective or for general interest
- ☐ B. To upgrade my skills in my present job situation
- ☐ C. To prepare myself to get a job in the data processing field
- ☐ D. To prepare myself to transfer into a baccalaureate program in data processing.

3- Did you work in the field of data processing while attending Harper College? Check (✓) one.

- ☐ A. Yes, a full-time job
- ☐ B. Yes, a part-time job
- ☐ C. No, but I worked in another field
- ☐ D. No, I did not work

4- What did you do immediately after leaving Harper? Check (✓) one.

- ☐ A. Took a job with the same company for which I was working while still at Harper
- ☐ B. Took a job in the data processing field
- ☐ C. Took a job out of the data processing field
- ☐ D. Continued my education at another college
- ☐ E. Other (specify) _____

5- Describe your present job. Job Title _____

Industry Type

- ☐ A. Agribusiness
- ☐ B. Service Industry
- ☐ C. Construction
- ☐ D. Transportation
- ☐ E. Communication
- ☐ F. Utilities
- ☐ G. Retail Trade
- ☐ H. Wholesale Trade

- ☐ I. Manufacturing
- ☐ J. Finance
- ☐ K. Education
- ☐ L. Government
- ☐ M. Publishing
- ☐ N. Insurance
- ☐ O. Other (specify) _____

6- What is your annual salary range? (Answer only if employed full time.) Check (✓) one.

- ☐ A. Under \$3,328 per year or under \$1.60 per hour
- ☐ B. \$ 3,328 - \$ 4,159 per year or \$ 1.60 - \$ 1.99 per hour
- ☐ C. \$ 4,160 - \$ 4,999 per year or \$ 2.00 - \$ 2.39 per hour
- ☐ D. \$ 5,000 - \$ 6,999 per year or \$ 2.40 - \$ 3.36 per hour
- ☐ E. \$ 7,000 - \$ 8,999 per year or \$ 3.37 - \$ 4.32 per hour
- ☐ F. \$ 9,000 - \$ 9,999 per year or \$ 4.33 - \$ 4.80 per hour
- ☐ G. \$10,000 - \$11,999 per year or \$ 4.81 - \$ 5.76 per hour
- ☐ H. \$12,000 - \$14,999 per year or \$ 5.77 - \$ 7.20 per hour
- ☐ I. \$15,000 - \$19,999 per year or \$ 7.21 - \$ 9.61 per hour
- ☐ J. \$20,000 - \$24,999 per year or \$ 9.62 - \$12.02 per hour
- ☐ K. \$25,000 - \$29,999 per year or \$12.03 - \$14.42 per hour
- ☐ L. \$30,000 - \$34,999 per year or \$14.43 - \$16.83 per hour
- ☐ M. \$35,000 - \$39,999 per year or \$16.84 - \$19.23 per hour
- ☐ N. \$40,000 - \$49,999 per year or \$19.24 - \$24.03 per hour
- ☐ O. \$50,000 - \$59,999 per year or \$24.04 - \$28.84 per hour
- ☐ P. \$60,000 - \$69,999 per year or \$28.85 - \$33.65 per hour
- ☐ Q. \$70,000 per year and over or \$33.66 per hour and over

7- If employed upon leaving Harper College, what was your starting job title? _____ Year began work _____

Industry Type

- ☐ A. Agribusiness
- ☐ B. Service Industry
- ☐ C. Construction
- ☐ D. Transportation
- ☐ E. Communication
- ☐ F. Utilities
- ☐ G. Retail Trade
- ☐ H. Wholesale Trade

- ☐ I. Manufacturing
- ☐ J. Finance
- ☐ K. Education
- ☐ L. Government
- ☐ M. Publishing
- ☐ N. Insurance
- ☐ O. Other (specify) _____

8- If employed upon leaving Harper, what was your starting annual salary? Check (✓) one. (Answer only if employed full time.)

- ☐ A. Under \$3,328 per year or under \$1.60 per hour
- ☐ B. \$ 3,328 - \$ 4,159 per year or \$ 1.60 - \$ 1.99 per hour
- ☐ C. \$ 4,160 - \$ 4,999 per year or \$ 2.00 - \$ 2.39 per hour
- ☐ D. \$ 5,000 - \$ 6,999 per year or \$ 2.40 - \$ 3.36 per hour
- ☐ E. \$ 7,000 - \$ 8,999 per year or \$ 3.37 - \$ 4.32 per hour
- ☐ F. \$ 9,000 - \$ 9,999 per year or \$ 4.33 - \$ 4.80 per hour
- ☐ G. \$10,000 - \$11,999 per year or \$ 4.81 - \$ 5.76 per hour
- ☐ H. \$12,000 - \$14,999 per year or \$ 5.77 - \$ 7.20 per hour
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- ☐ O. \$50,000 - \$59,999 per year or \$24.04 - \$28.84 per hour
- ☐ P. \$60,000 - \$69,999 per year or \$28.85 - \$33.65 per hour
- ☐ Q. \$70,000 per year and over or \$33.66 per hour and over.

9- How did the data processing courses and program at Harper help you in your present job situation? Check (✓) those appropriate.

- _____ A. They helped me get my present job (specify how) _____
- _____ B. They helped me perform better on my present job (specify how) _____
- _____ C. They have not had any effect on my job or educational situation.
- _____ D. They have helped me in my present educational situation (specify how) _____
- _____ E. Question not applicable

10- Rate the value of each of the following data processing courses to you either on your present job or in the college you are now attending. Check (✓) one column for each course.

<u>Course</u>	<u>Title</u>	<u>Of High Value</u>	<u>Of Value</u>	<u>Of Some Value</u>	<u>Of No Value</u>	<u>Did Not Take Course</u>
DPR-101	Introduction to Data Processing	_____	_____	_____	_____	_____
DPR-106	Computer Logic & Programming Tech	_____	_____	_____	_____	_____
DPR-108	Computer Programming - COBOL	_____	_____	_____	_____	_____
DPR-110	Computer Programming - Basic Assembler Language	_____	_____	_____	_____	_____
DPR-120	Intro to Business Software Pkgs.	_____	_____	_____	_____	_____
DPR-122	Data Base for Micros	_____	_____	_____	_____	_____
DPR-123	Spread Sheet/Budgeting for Micros	_____	_____	_____	_____	_____
DPR-124	Decision Support for Micros	_____	_____	_____	_____	_____
DPR-125	Word Processing for Micros	_____	_____	_____	_____	_____
DPR-130	BASIC for Business	_____	_____	_____	_____	_____
DPR-135	Computer Operator	_____	_____	_____	_____	_____
DPR-140	Report Program Generator (RPG)	_____	_____	_____	_____	_____
DPR-142	PL/1 Programming Language	_____	_____	_____	_____	_____
DPR-150	Business FORTRAN	_____	_____	_____	_____	_____
DPR-160	Intro to PASCAL Programming	_____	_____	_____	_____	_____
DPR-170	Intro to Data Communications	_____	_____	_____	_____	_____
DPR-202	Programming Systems	_____	_____	_____	_____	_____
DPR-203	Systems Analysis and Design I	_____	_____	_____	_____	_____
DPR-204	Systems Analysis of Design II	_____	_____	_____	_____	_____
DPR-208	Computer Programming - Advanced COBOL Language	_____	_____	_____	_____	_____
DPR-210	Computer Programming - Advanced Assembler	_____	_____	_____	_____	_____
DPR-240	Advanced RPG II	_____	_____	_____	_____	_____
DPR-270	Data Communications Applications	_____	_____	_____	_____	_____

- 11- Please check (✓) all skills and competencies listed below which were NOT developed at Harper which could be helpful to you now or which would have been helpful when you first became employed after leaving Harper.

- _____ A. Microcomputer applications
- _____ B. More knowledge about JCL
- _____ C. More knowledge about OS
- _____ D. Standards of programming and documentation
- _____ E. Systems Analysis
- _____ F. Systems Design
- _____ G. Structured analysis and programming
- _____ H. Other (specify) _____

COMMUNICATION SKILLS

- _____ I. Technical report writing
- _____ J. Business report writing
- _____ K. Presentation skills
- _____ L. Other (specify) _____

GENERAL BUSINESS

- _____ M. Accounting
- _____ N. Finance
- _____ O. Management
- _____ P. Other (specify) _____

- 12- What is your overall judgement of the faculty who taught data processing at Harper? Check (✓) one in each column.

	<u>Full-Time Faculty</u>	<u>Part-Time Faculty</u>
_____ A. Outstanding - they really caused me to learn a lot.	_____	_____
_____ B. Good or about average	_____	_____
_____ C. Okay - they presented all the required material in a manner that could be understood.	_____	_____
_____ D. A mixture - some were good, some were okay, and some were unsatisfactory	_____	_____
_____ E. Unsatisfactory - either only a part of the required material was presented or the material was presented in such a manner that it was hard to understand	_____	_____

- 13- Make any specific comments about the faculty, the courses or the relevance of the curriculum that you wish -- _____

14- What additional training should today's students receive to prepare them for a data processing occupation? Check (✓) all that apply. /

- ☐ A. Data Base
- ☐ B. IMS
- ☐ C. CICS
- ☐ D. Teleprocessing
- ☐ E. Structured Design
- ☐ F. Structured Programming
- ☐ G. Distributive Processing
- ☐ H. Interactive Processing
- ☐ I. OS JCL
- ☐ J. Data Security - Data Privacy
- ☐ K. Microcomputer Applications
- ☐ L. Other (specify) _____

15- What data processing seminars, courses and workshops, if any, have you attended at Harper College? _____

In Industry _____

Data processing seminars, courses and workshops I would attend if offered at Harper College: _____

THANK YOU -

ERIC Clearinghouse for
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Operational Staff:

Janice Cook, Secretarial
Karis Hill — Mailing, Tabulation
Linda Pones — Telephoning